## AMENDMENTS TO THE CLAIMS

1. (currently amended) An integrated circuit configured to provide a microphone output signal, comprising:

a preamplifier coupled to receive an input signal, generated by a first microphone member that is movable relative to a second microphone member; and

a voltage pump to provide a bias voltage to either microphone member and having a first pump stage ~~at which an oscillator provides oscillating signals with pulse amplitudes,~~ and

a second pump stage, ~~at which a voltage level is pumped to a higher level by means of a circuit operating on the oscillator signal, provided at the first stage;~~

the first pump stage having first components with a nominal voltage level above which the components have a voltage breakdown level, and

the second pump stage having second components which have a voltage breakdown level above the voltage breakdown level of the first components~~; and~~

~~the pulse amplitudes of the oscillating signals provided at the first pump stage are substantially equal to the nominal voltage level~~.

2. (Currently amended) An integrated circuit according to claim 1, further comprising an oscillator that provides oscillating signals of different pulse amplitudes and where the oscillator is configured to draw substantially equal levels of current across signal cycles provided by the oscillator.

3. (currently amended) An integrated circuit according to claim ~~1~~ 2, where the oscillator comprises paths with elements that can be charged with an electrical charge and where the paths are controlled by the oscillator to charge the different elements of the different paths alternately by a current drawn from a common source.

4. (currently amended) An integrated circuit according to claim ~~1~~ 2, wherein the first pump stage has a voltage pump which receives the oscillating signal, with a voltage pulse level, and

provides a pumped oscillating signal, with a higher voltage pulse level, which is supplied to the second pump stage.

5. (Previously presented) An integrated circuit according to claim 1, wherein an output signal of the first voltage pump stage is provided as a feedback signal to a circuit which maintains a fixed voltage pulse level of the signals output from the first pump stage (P1'; P2').

6. (Previously presented) An integrated circuit according to claim 1, wherein the second pump stage comprises a voltage pump configured as a Dickson converter.

7. (Previously presented) An integrated circuit according to claim 1, wherein an output signal of a Dickson type voltage converter, is provided as a feedback signal to a circuit which provides a regulated voltage pulse level of the output of said signal from the voltage converter.

8. (Previously presented) An integrated circuit according to claim 1, wherein multiple voltage converters are cascaded to provide the bias voltage, and including a further voltage converter, which matches the first converter in the cascade, said further voltage converter being coupled to receive the same signal as the first converter and to provide a feedback signal to a circuit which maintains a fixed voltage level of the signals output from the further voltage converter.

9. (Previously presented) An integrated circuit according to claim 1, wherein the voltage pump comprises capacitors implemented as Metal capacitors.

10. (Previously presented) An integrated circuit according to claim 1, wherein the voltage pump comprises diodes implemented as Poly-diodes.

11. (Previously presented) An integrated circuit according to claim 1, wherein the voltage pump comprises diodes implemented as diffusion diodes in an N-well.

12. (Previously presented) An integrated circuit according to claim 1, wherein the preamplifier, comprises

a differential input stage with a first and a second input terminal and an output stage with an output terminal;

a feedback circuit, having a low-pass frequency transfer function, coupled between the output terminal and the first input terminal and integrated on the semiconductor substrate; and

the second input terminal comprises an input for a microphone signal.

13. (Previously presented) An integrated circuit according to claim 12, wherein the feedback circuit is a filter with a transfer function, in the frequency domain, with a zero and a pole; and the zero is located at a higher frequency than the pole.

14. (Previously presented) An integrated circuit according to claim 12 wherein the preamplifier has a transfer function, in the frequency domain, with a zero and a pole; and the pole being located in the range 0.1Hz to 50 Hz or 0.1Hz to 100Hz or 0.1 to 200Hz.

15. (Previously presented) An integrated circuit according to claim 12, wherein the feedback circuit is a filter which, in the frequency domain, has a relatively high gain level below a transition frequency range and a relatively low gain level above the transition frequency range.

16. (Previously presented) An integrated circuit according to claim 12, wherein the transition frequency range is located below a frequency of about 100 Hz.

17. (Previously presented) An integrated circuit according to claim 12, wherein the transition frequency range is located below a frequency of 40 Hz.

18. (Previously presented) An integrated circuit according to claim 1, comprising a DC blocking capacitor coupled to diminish a DC voltage at the input of the preamplifier, which DC voltage originates from biasing the first or second microphone member.

19. (Previously presented) An integrated circuit according to claim 1, wherein the integrated circuit comprises an A/D converter.

20. (Previously presented) An integrated circuit according to claim 1, wherein the integrated circuit further is configured with an analogue-to-digital converter; and the voltage pump and the analogue-to-digital converter are driven by a common clock-signal.

21. (Previously presented) An integrated circuit according to claim 20, wherein the analogue-to-digital converter is of the sigma delta converter type.

22. (Previously presented) An integrated circuit according to claim 21, comprising a high-pass filter.

23. (Previously presented) An integrated circuit according to claim 1 to 22, wherein the preamplifier is configured to provide a high-pass filter function.

24. (Previously presented) A microphone comprising an integrated circuit according to claim 1.

25. (Previously presented) A microphone according to claim 24, wherein the microphone is a condenser microphone.

26. (Previously presented) A microphone according to claim 24, wherein the microphone is a MEMS microphone.